

SILICA SAND PROJECT

# HIGH-PURITY SILICA SAND

BELMONTE - BAHIA - BRAZIL

High-purity silica with positive final research results,  
strategic logistics and strong potential for  
industrial-scale developments



ANM PROCESS  
**871.411/2020**



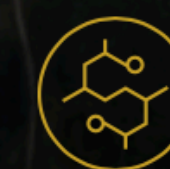
TOTAL AREA  
**47.91 ha**



MEASURED RESERVE  
**2.420.000t**



INDICATED RESERVE  
**1.206.000t**

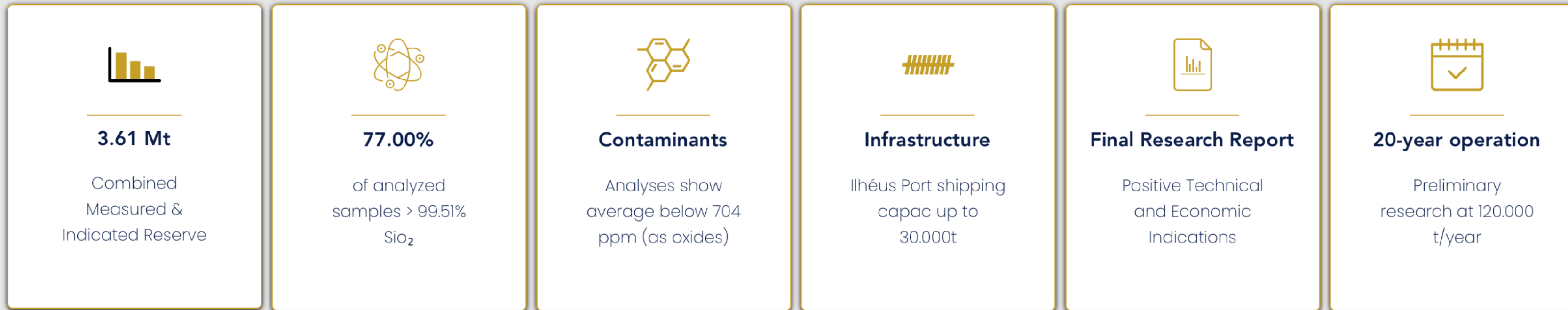


MAX  $\text{SiO}_2$   
**99.80%**



DISTANCE TO PORT  
**~200 km**

## INVESTMENT HIGHLIGHTS



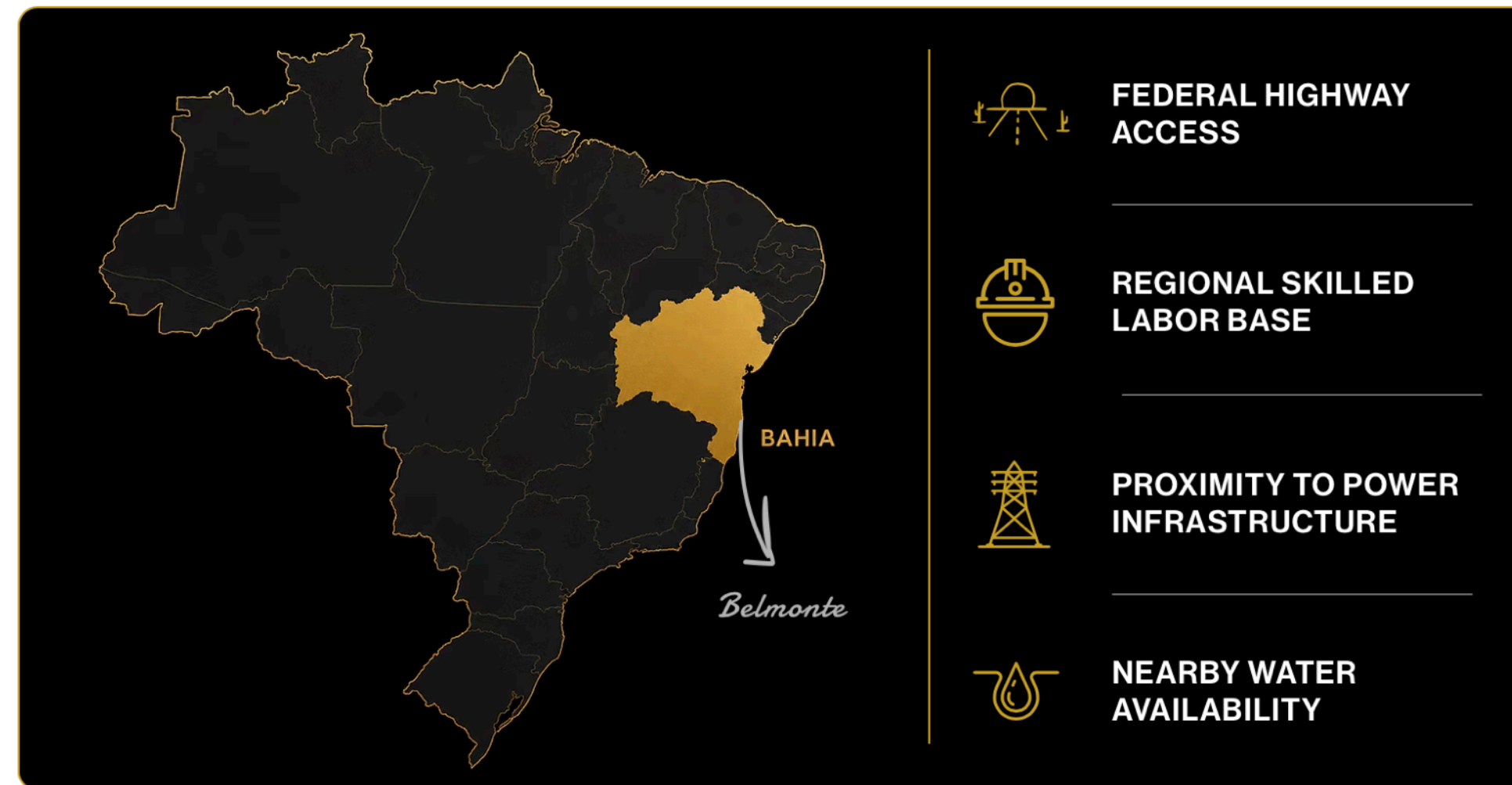
## PROJECT OVERVIEW

The Silica Sand project is located in Belmonte, in the southern region of Bahia, Brazil.

The area hosts a high-purity silica sand deposit with high-purity silica confirmed by research, strategic logistics, and strong potential for industrial-scale development.

The project benefits from existing logistical conditions, low operating cost, and growing demand for high-purity silica sand globally.

Research supports 20 years of operation at an annual production rate of 120.000t.



## STRATEGIC APPLICATIONS



Solar Glass



Specialty Glass



Foundry



Ceramics



Silicon-Based Industries



High-Tech Industries

## TECHNICAL DATA

Comprehensive technical studies and analyses support the quality, scale and long-term development potential of the Belmonte Silica Sand Project. The available data includes geological mapping, sampling, drilling, granulometric characterization, chemical analysis, reserve estimation and technical-economic conclusions.



### Local Geology

The deposit is located within the Santa Maria Formation, in the Rio Pardo Basin, where favorable geological conditions support the occurrence of high-purity silica sand.

The Belmonte Silica Sand Project is located in the municipality of Belmonte, in southern Bahia, Brazil, within the regional geological context of the Santa Maria Eterna area. The deposit is associated with the Santa Maria Formation, in the Rio Pardo Basin, a geological setting known for the occurrence of siliceous sand deposits.

The mapped area is dominated by siliceous metadolomites with quartzite intercalations. The genesis of the deposit is interpreted as a residual in-situ concentration process, resulting from the leaching of carbonate fractions from highly siliceous rocks. This process left behind a sandy-siliceous residue, forming a deposit with favorable characteristics for high-purity silica sand development.

The occurrence is marked by white, clean sand bodies with a clear field contrast against yellowish clayey sand and other impure materials. The useful sand zones are associated with elevated tabular terrain and are visually identifiable through surface morphology, vegetation patterns, material exposed by anthills and field contact mapping.

Key Technical Points:

- Located in Belmonte, Bahia, Brazil
- Associated with the Santa Maria Formation
- Regional context of the Rio Pardo Basin
- Siliceous metadolomites with quartzite intercalations
- Residual in-situ silica concentration process
- Useful sand bodies identified through geological mapping and field validation

### Deposit Aspects

The useful sand body is characterized by fine, homogeneous white sand, angular quartz grains, low compaction and favorable physical characteristics for development.

The Belmonte deposit is characterized by a useful sand body with strong visual whiteness, homogeneous grain size and clear contrast against impure sand layers. The useful material is generally white, clean and visually distinct from the superficial impure sand, which tends to present darker grey or yellowish coloration and may contain organic matter.

The impure material is mainly located in the superficial portion of the deposit, generally within the first meter. This was considered during sampling and reserve estimation, with the first meter of drilling being discarded where appropriate to avoid contamination. Below this superficial layer, the useful sand is described as visually homogeneous across different drill holes, supporting the interpretation of continuity within the sand body.

The useful sand has fine and homogeneous granulometry, with irregular and angular quartz grains. Under magnification, grains range from translucent to transparent, with occasional fine milky quartz gravel and rare well-formed hyaline quartz crystals. The material is described as very white and pure, with rare grey or yellowish material. After manual washing and drying, color differences were not significant.

Physical characteristics such as low compaction, high porosity and favorable sand body morphology support the interpretation of a potentially attractive deposit for industrial development. These characteristics, combined with the chemical and granulometric results, strengthen the technical basis for the project.

Key Technical Points:

- White, clean and visually homogeneous useful sand
- Superficial impure layer generally up to approximately 1.0 m
- Fine and homogeneous grain size
- Irregular and angular quartz grains
- Low compaction and favorable porosity
- Clear field contrast between useful white sand and impure yellowish clayey material

### Sampling & Drilling Program

The research program included geological mapping, GPS-supported field work and auger drilling on a structured grid to evaluate the continuity, geometry and quality of the sand body.

The exploration program was designed to quantify and qualify the high-purity silica sand deposit through systematic field work, geological mapping, drilling and laboratory analysis. A regular drilling grid was established to provide spatial control over the useful sand body and support the interpretation of deposit continuity.

The drilling work was carried out using shell-type mechanical auger drilling, with holes reaching a maximum depth of 6.00 meters. A 100 m x 100 m grid was adopted, allowing the project team to assess the spatial distribution of clean sand, contact zones and non-useful materials. Each borehole was positioned with GPS support, and the surface limits of the useful sand body were defined through direct field observation.

A total of 38 holes were drilled. Of these, 26 intercepted white, clean and high-purity sand; 2 intercepted contact zones between clean sand and dirty sand; and 10 were classified as negative holes, intercepting gravel or dirty clayey sand. The first meter of drilling was discarded in the sampling process due to potential contamination by roots and organic material. The useful material was then collected, homogenized, quartered and prepared for laboratory analysis.

The sampling program generated representative composite samples, which were submitted for granulometric and chemical analysis. This work provided the technical foundation for reserve estimation, sand quality assessment and the evaluation of the project's potential for industrial-scale development.

Key Technical Points:

- Systematic auger drilling program
- 100 m x 100 m drilling grid
- Maximum drilling depth of 6.00 m
- 38 holes drilled in total
- 26 positive holes, 2 contact holes and 10 negative holes
- GPS-supported positioning and field mapping
- Composite samples prepared for laboratory analysis

## Granulometry & Chemical Quality

Laboratory results indicate high SiO<sub>2</sub> content, low contaminant levels and favorable granulometric characteristics for high-purity industrial silica applications.

The Belmonte Silica Sand Project has been evaluated through granulometric and chemical analyses designed to assess its suitability for high-purity industrial applications. Samples were subjected to dry particle size analysis and chemical testing, including SiO<sub>2</sub> and key contaminant elements such as Fe, Ti, Al, Ca, Mg, Na, K and Zr.

The analyzed material presents strong silica quality indicators. A significant portion of the samples showed SiO<sub>2</sub> levels above 99.51%, and the maximum silicon dioxide content reported reached 99.80%. The main contaminants, when converted into their respective oxides, remained at low average levels, supporting the technical positioning of the material as a high-purity silica sand.

Granulometric analysis indicated that the sampled material is predominantly concentrated within commercially relevant size fractions. The deposit also presents uniformity in terms of grain size and whiteness across multiple samples, supporting the interpretation of consistent quality throughout the useful sand body.

Mineralogical observations indicate that the quartz grains are generally angular, ranging from milky to semi-transparent in coarser fractions and hyaline in finer fractions. Some chromogenic influence is associated mainly with Fe and Ti-bearing phases, including leucoxene and fine inclusions or surface coatings. However, the overall chemical profile remains favorable for common industrial uses.

Key Technical Points:

- High SiO<sub>2</sub> content, with maximum reported value of 99.80%
- 77% of analyzed samples above 99.51% SiO<sub>2</sub>
- Low average contaminant levels
- Chemical analysis included SiO<sub>2</sub>, Fe, Ti, Al, Ca, Mg, Na, K and Zr
- Favorable granulometric distribution
- Consistent quality across analyzed samples
- Angular quartz grains and homogeneous useful sand

## Economic Feasibility

The project benefits from measured and indicated reserves, favorable logistics, low operating complexity and growing demand for high-purity silica sand.

The economic potential of the Belmonte Silica Sand Project is supported by geological mapping, systematic drilling, sampling, granulometric studies, chemical analysis and reserve estimation. The technical work carried out in the area provided the basis for evaluating the quality, scale and development potential of the deposit.

The project area includes a measured reserve and an indicated reserve of useful high-quality silica sand. Together, these reserves support the potential for long-term operation, subject to the necessary licensing, project development and operational planning. The research also indicates that the useful sand body may continue below the drilling depth reached during the program, as the holes did not fully reach the end of the sand body.

The project also benefits from favorable logistical conditions. Its location in Belmonte, Bahia, places the asset approximately 200 km from the Port of Ilhéus, a relevant advantage for bulk export logistics. The area also benefits from access conditions and regional infrastructure that may support future development.

The combination of high-purity silica sand, reserve scale, logistical positioning, low operating complexity and growing market demand for high-purity silica sand creates a strong technical and commercial foundation for the project. These factors support the project's positioning as a strategic industrial mineral opportunity in Brazil.

Key Technical Points:

- Measured and indicated reserves identified through research work
- Combined useful sand reserve above 3.6 million tonnes
- Potential long-term operation based on reserve estimates
- Located approximately 200 km from the Port of Ilhéus
- Favorable logistics for bulk export potential
- Technical and economic indicators support industrial-scale development

## Final Conclusions

The studies provide positive technical and economic indications for the rational development of an industrial-scale silica sand operation in Belmonte, Bahia.

The technical studies carried out at the Belmonte Silica Sand Project support the presence of a high-purity silica sand deposit with favorable geological, chemical, granulometric and logistical characteristics. The work completed by Brasil Mineração focused on quantifying and qualifying the deposit located in the rural area of Belmonte, near the district of Santa Maria Eterna.

The results obtained provide positive technical elements for the potential development of an industrial-scale silica sand operation. The combination of high SiO<sub>2</sub> content, low contaminant levels, homogeneous useful sand, favorable granulometry and significant measured and indicated reserves supports the project's technical credibility.

The project is also supported by favorable development factors, including regional logistics, proximity to export infrastructure, low operating complexity and growing demand for high-purity silica sand. These characteristics are particularly relevant for industrial markets connected to glass, foundry, ceramics, silicon-based industries, industrial fillers and energy transition-related applications.

Based on the research currently available, the project has the potential to support a long-term operation and represents an important industrial mineral opportunity within BRM's portfolio. Further technical, environmental, licensing and commercial steps may be undertaken to advance the project toward development, partnerships or strategic commercialization.

Key Technical Points:

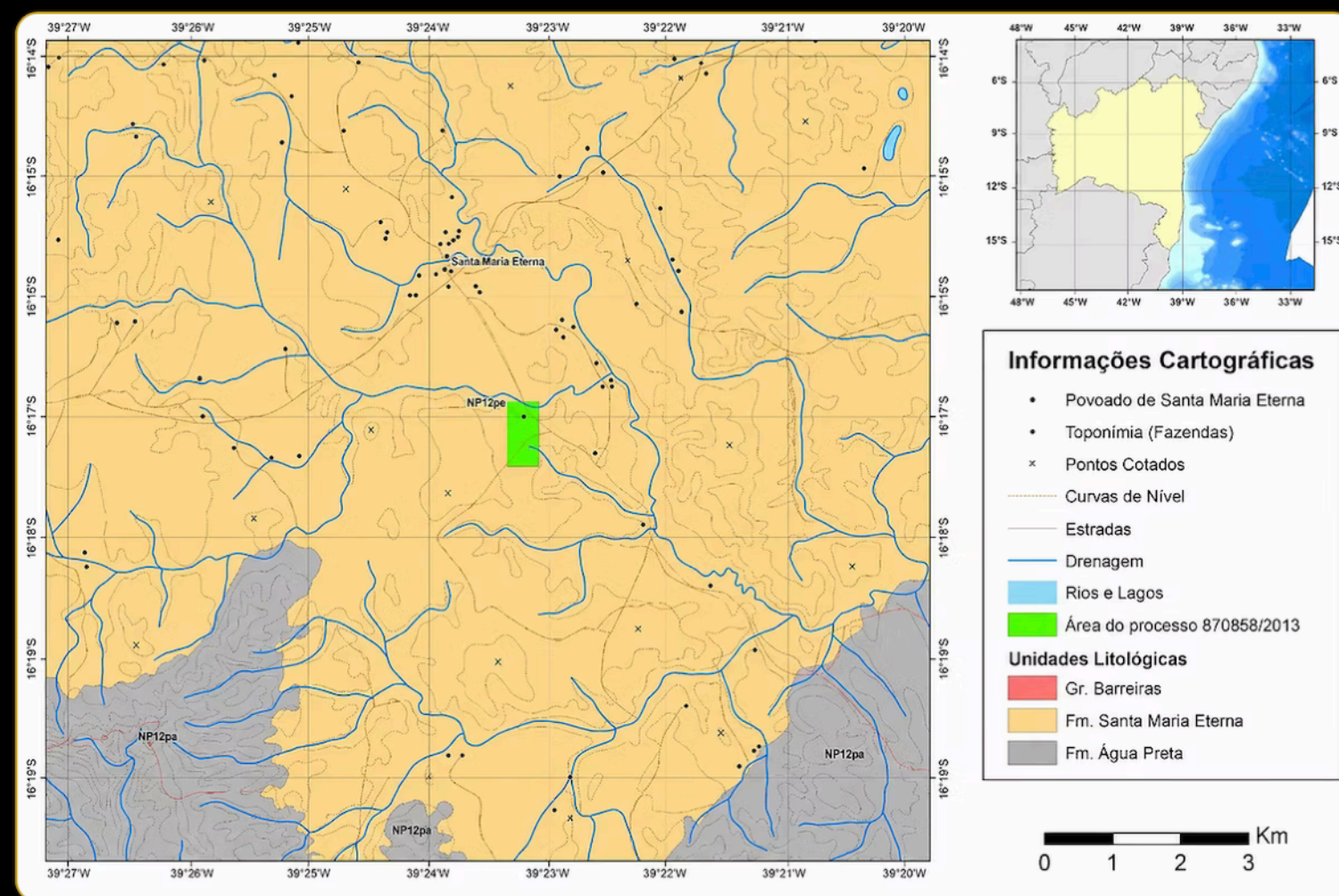
- High-purity silica sand deposit identified in Belmonte, Bahia
- Positive technical and economic indications
- Favorable chemical and granulometric characteristics
- Significant measured and indicated reserves
- Strategic logistical positioning
- Potential long-term industrial-scale development
- Opportunity aligned with global demand for high-purity silica sand

## QUALITY SNAPSHOT

The quality snapshot below presents the average chemical and granulometric results obtained from the analyzed raw silica sand samples, before any industrial beneficiation, washing or upgrading process. These figures highlight the natural purity of the Belmonte deposit and provide a technical baseline for evaluating its potential for high-purity industrial applications.


SiO <sub>2</sub>	Al	Fe	Ti	Ca	Na	K	Zr	Mg	Granulometry
<b>99.51%</b>	<b>275.46</b> ppm	<b>142.15</b> ppm	<b>132.62</b> ppm	<b>56.54</b> ppm	<b>31.08</b> ppm	<b>25.54</b> ppm	<b>22.23</b> ppm	<b>18.08</b> ppm	







## GEOLOGICAL SETTING & DEPOSIT QUALITY

- Santa Maria Formation, Rio Pardo Basin.
- Siliceous Metadolomites with Quartzite Intercalations.
- Residual In-Situ Silica Concentration.
- Fine, homogeneous white sand with angular quartz grains.
- Low Compaction and High Porosity supporting a sand deposit structure.

 Drilling Grid  
100m x 100m

 Maximum Drilling Depth  
6.00m

 38 holes drilled  
- 26 positive  
- 2 contact  
- 10 negative

## PROJECT UNDER EXPANSION


The BRM Project 871.411/2020 is advancing into a new development stage, supported by consolidated technical data, including geochemical analyses, structural mapping, and inferred resource estimation. Focused on Silica Sand, the asset combines significant economic potential with favorable logistics, proximity to operational centers, and efficient road access. The area is ready to receive new drilling campaigns, along with 3D modeling and preliminary economic assessment activities.

## OPEN FOR BUSINESS

BRMining is actively seeking strategic partnerships and institutional investors with a direct interest in the critical minerals sector. The project is open to joint ventures (JV), mergers and acquisitions, and off-take agreements, particularly with groups operating in the fields of energy transition, advanced technology, and industrial security.

Contact for Opportunity:

 [dennis@brmining.net](mailto:dennis@brmining.net)

 +55 (71) 99955-1164

